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ABSTRACT

As part of a program to evaluate noncognitive tests for use in identifying enlisted men most likely to remain in the Navy, the Navy Vocational Interest Inventory (NVII) was analyzed for its ability to predict career motivation. The NVII was administered experimentally to incoming students at seven "A" schools varying widely in curriculum. Scores were obtained on two different types of scales, empirically derived occupational scales and homogeneous (area) scales. A reenlistment criterion was later obtained for each man by searching enlisted Navy personnel records. Mean NVII occupational key and area scale scores were computed for reenlistees and nonreenlistees in each school. An intercorrelation matrix was computed for each school, and multiple-regression analyses were completed on occupational keys and area scales using retention as the criterion variable. The area scales were analyzed for their ability to differentiate men in different ratings. Analysis of the data indicated that both the occupational keys and the area scales aided in identifying "A" school students most likely to remain in the Navy. Although the differences were not substantial, the occupational keys were somewhat more effective than the area scales in predicting reenlistment. (Author)

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AN ANALYSIS OF THE NAVY VOCATIONAL INTEREST INVENTORY AS A PREDICTOR OF CAREER MOTIVATION

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June 1969

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SUMMARY

A. Problem

The purpose of this research is to evaluate the effectiveness of a vocational interest test as a predictor of career motivation among enlisted men.

B. Background

As part of a program to evaluate non-cognitive tests for use in identifying enlisted men most likely to remain in the Navy, the Navy Vocational Interest Inventory (NVII) was analyzed for its ability to predict career motivation.

C. Approach

The NVII was administered experimentally to incoming students at seven "A" schools varying widely in curriculum. Scores were obtained on two different types of scales, empirically derived occupational scales and homogeneous (area) scales. A reenlistment criterion was later obtained for each man by searching enlisted Navy personnel records. Mean NVII occupational key and area scale scores were computed for reenlistees and non-reenlistees in each school. An intercorrelation matrix was computed for each school, and multiple-regression analyses were completed on occupational keys and area scales using retention as the criterion variable. The area scales were analyzed for their ability to differentiate men in different ratings.

D. Findings, Conclusions, and Recommendations

Analysis of the data indicated that both the occupational keys and the area scales aided in identifying "A" school students most likely to remain in the Navy (page 5). Although the differences were not substantial, the occupational keys were somewhat more effective than the area scales in predicting reenlistment (page 7). Since sample sizes were not sufficient for cross-validation of the various combinations of predictive scales, the promising results reported here are being followed by a program of large-scale testing for cross-validation purposes and further development of the inventory.

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AN ANALYSIS OF THE NAVY VOCATIONAL INTEREST INVENTORY AS A PREDICTOR OF CAREER MOTIVATION

A. PURPOSE

It is commonly assumed that there is a substantial relationship between vocational interests and career motivation. The rationale underlying usage of vocational interest tests in predicting career motivation is simply that a man interested in the work he is assigned will tend to continue such work (in the Navy), while the man not interested in his work will be more likely to leave the Navy.[1]

Previous attempts have been made to employ vocational interest scales to predict enlisted reenlistment. For example, the Navy Activities Preference Blank (NAPB), an interest inventory containing 40 triads, has been evaluated in two studies. This inventory was found to be ineffective both when the original factor-derived keys were employed (Steinemann, 1963), and when empirically constructed keys were used (Abrahams, Neumann & Githens, 1967). The present study assesses the effectiveness of the Navy Vocational Interest Inventory (NVII) in identifying "A" school students most likely to remain in the Navy.

B. BACKGROUND

1. The NVII

The NVII was developed by Clark (1953, 1955, 1961) primarily for recruit classification and assignment. It contains 190 triads, each consisting of three statements describing tasks performed in non-professional civilian or military jobs. In developing the items, an effort was made to emphasize activities which differentiated men in various skilled trades and technical occupations, and less emphasis was placed on professional or unskilled occupational activities. For each triad the respondent selects the one task of the three that he would like best and the one he would like least. An example of a triad follows:

Tasks	Best	Least
a. Cook a meal.	||	||
b. Learn to use a slide rule.	||	||
c. Repair a broken connection on an electric iron.	||	||

[1] It should be noted that separation from the Navy does not always imply a dislike of the work. Navy men who do not reenlist may seek similar work in a non-military setting.

By contrasting the responses of men in a given rating with Navy Men-in-General (NMIG) Clark constructed a total of 19 empirical occupational keys representing the more populous Navy ratings. He later reduced the number of Navy keys from 19 to 13 by deleting one of each pair of highly related keys. A scoring key was considered effective if it successfully differentiated between the interests of NMIG and groups of men who were members of specific Navy ratings. Clark found that the NVII scoring keys were very effective in differentiating between the reference group and various rating groups.

2. Previous NVII Research

A recent study demonstrated that NVII occupational keys were effective in differentiating men in various "A" schools on the basis of interest scores, and that the scoring keys contributed significantly toward predicting "A" school performance (Abrahams, Lau & Neumann, 1968). These findings were in agreement with earlier reports that were concerned with the validity of occupational NVII keys in predicting school grades (Clark, 1955; Albitz, 1958; Spies, 1966). Although no studies have directly related NVII keys to career motivation, Perry (1953) found that the NVII Yeoman key predicted the job satisfaction of a Yeoman sample.

3. Occupational Versus Area NVII Scales

One shortcoming of empirically derived occupational keys is the amount of work necessary to construct and score keys for all of the Navy schools. Some occupational keys have substantial correlations with others, and consequently it may be possible to describe the essential variation in patterns of interest scores by use of a smaller number of keys. To some degree, this reduction was accomplished when the number of occupational keys was reduced from 19 to 13.

Although it is justifiable to say that a man who scores high on the Hospitalman (HM) key has interests like rated HM's, it is difficult to make any generalizations about the trait structure underlying occupational keys. The area scales developed by Clark can be used to better understand the nature of differences in group interest patterns. Their development consisted of identifying clusters of items (rather than keys) that were related to one another. An advantage of these scales is that they draw together items with a common core into homogeneous groupings, thus providing relatively "pure" indicators of traits or factors measured by the NVII.

The nine NVII area scales that were developed by Clark were Mechanical, Health Service, Office Work, Electronics, Food Service, Carpentry, Sales-Office, Clean Hands, and Outdoors. A complete description of each area scale is presented in Appendix A.

C. PROCEDURE

In 1964 and 1965, the NVII was administered to recruits at seven different "A" schools prior to the beginning of training. These seven schools were Hospitalman (HM), Electronics Technician (ET), Yeoman (YN), Storekeeper (SK), Engineman (EN), Machinist's Mate (MM), and Submarine. NVII scores were obtained on 19 occupational keys. A relevant occupational key (i.e., a key specific for that school) was available for all but the Submarine School. In addition to these occupational key scores, area scale scores were obtained for men in each school.

A reenlistment criterion was obtained for each man in 1969 by searching enlisted Navy personnel records. For the total sample (N = 889), 201 first-term reenlistees were identified. Table 1 gives the number and percentage of reenlistees and non-reenlistees by school assignment. Although YN and SK's are shown separately in this table, they were combined for later analyses since their interests are very homogeneous (Abrahams, Lau & Neumann, 1968).

TABLE 1

Number of Reenlistees and Non-reenlistees
by School Assignment

School	Reenlistees		Non-Reenlistees		Total
	N	Percent	N	Percent	
(HM) Hospitalman	19	8.5	204	91.5	223
(ET) Electronics Technician	16	14.5	94	85.5	110
(YN) Yeoman	16	17.8	74	82.2	90
(SK) Storekeeper	11	13.1	73	86.9	84
(EN) Engineman	19	17.4	90	82.6	109
(MM) Machinist's Mate	19	29.7	45	70.3	64
Submarine	101	48.3	108	51.7	209
Totals	201	22.6	688	77.4	889

Mean NVII occupational key and area scale scores, "A" school grades, and General Classification Test (GCT) scores were computed for reenlistees and non-reenlistees in each school and tested to determine if significant differences existed between the two groups. An intercorrelation matrix was computed for each school and multiple-regression analyses on each set of scales for each group were completed using retention as the criterion variable. This procedure allowed a comparison of the effectiveness of both types of keys in predicting career motivation.

D. RESULTS AND DISCUSSION

1. NVII Validity

a. Occupational key validity. This section summarizes the effectiveness of the occupational NVII keys as applied to the prediction of career motivation. First, information on the validity of individual keys is presented and second, the validity of combined keys is presented. Table 2 presents the results of six multiple regression analyses, one for each school, using all occupational keys in combination. The percentage of overlap, an index of the percentage of men in one distribution whose scores can be matched by scores in the other distribution, is also presented in Table 2 for the best single NVII keys.

The NVII scores were related to reenlistment for each school sample at a statistically significant level or a level very close to statistical significance. Analysis of the mean key scores for reenlistees and non-reenlistees indicated that reenlistees, in four of the six groups, had significantly higher mean scores on either the relevant keys or on a key that was highly related to the relevant key (see Appendix B).

Considering the validity of relevant keys only, correlations with reenlistment ranged from -.01 for the MM School to .16 and .21 for the YN-SK and EN schools, respectively. The median correlation between relevant keys and reenlistment was .10. There were no significant overall differences in "A" school grades or GCT scores between reenlistees and non-reenlistees. The relevant key was generally not the best single predictor of reenlistment. In many cases, however, the best single key was one which was highly related to the relevant key for a particular school. For example, the best single key for the EN School was the MM key and the best single key for the ET School was the RD key.

Table 2 also shows that combinations of NVII keys significantly increased the correlation with reenlistment over that found with the best single key for the ET, YN-SK, and Submarine schools. The median correlation for the best single occupational key was .20, and the median correlation for a combination of keys was .28.

In none of the schools investigated in this study was the sample size large enough to permit cross-validation of the various combinations

TABLE 2

Combined NVII Keys Versus Single NVII Key Validity
for Each School in Predicting Reenlistment

School	N	Percent Overlap	Best Single NVII Key	NVII Multiple	Absolute Increase	p[a]
(HM) Hospitalman	223	78	.16 (FS)[b]	.22	.06	n.s.
(ET) Electronics Technician	110	78	.18 (RD)	.30	.12	.05
(YN)-(SK) Yeoman - Storekeeper	174	78	-.17 (HM)	.28	.11	.05
(EN) Engineman	109	74	.24 (MM)	.29	.05	n.s.
(MM) Machinist's Mate	64	80	.23 (RD)	.26	.03	n.s.
Submarine	209	82	.22 (MM)	.40	.18	.01

Notes --

[a]Significance of increase was determined between single key validity and $\underline{R}$'s based upon more than one key (McNemar, 1960, p. 279); n.s. indicates non-significant increase.

[b]Abbreviations in parentheses indicate the key on which validity is based.

of predictive scales.[2] In spite of this difficulty, the results indicate the occupational NVII keys to be promising for identifying "A" school students most likely to remain in the Navy.

b. Area scale validity. This section summarizes the effectiveness of the NVII area scales in predicting career motivation. Table 3 presents the results of six multiple regression analyses, one for each school, using all NVII area scales in combination. The percentage of overlap for the best single NVII area scales is also presented in Table 3.

Table 4 presents means, standard deviations, and correlations with reenlistment for all NVII area scales within each rating. Correlations between the most valid area scale and reenlistment ranged from .12 to .25, with a median correlation of .18. Correlations between the scale judged most relevant for that school ranged from -.04 for the MM School to .17 for the ET School, with a median correlation of .14. This was somewhat higher than the validity of relevant occupational keys (r = .10). However, a combination of area scales significantly increased the prediction of reenlistment only in the MM School. As measured by the percentage of overlap and the correlations with reenlistment, the results indicated that occupational keys in combination were somewhat more effective than area scales in predicting career motivation. However, the differences are not substantial, and it is apparent that area scales can also be of possible use in identifying men most likely to remain in the Navy.

c. School differentiation. As noted earlier in the report, area scales make it possible to better understand the pattern of interest traits within individuals and between ratings. Table 4 shows that the nine NVII area scales effectively differentiated interest patterns among the samples included in the study. The mean raw score profiles of men in the MM, ET, EN, and Submarine schools were quite similar to each other, but very dissimilar to the profiles of men in the other two schools. In every school, men earned their highest scores on the area scale judged most relevant for that school. These results parallel those reported in an earlier study where NVII occupational key profiles were presented (Abrahams, Lau & Neumann, 1968).

2. Individual Ratings

This section summarizes the validity of the NVII as applied to individual Navy schools included in the study. The data presented in this section have been extracted from previously presented tables. The occupational and area scales that contributed to the prediction of career

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[2] In addition, the correlations were limited by the low percentage of reenlistees. For example, where the proportion of reenlistees was low, as it was in the HM School, the magnitude of the correlations was restricted.

TABLE 3

Combined NVII Area Keys Versus Single Area Key Validity
for Each School in Predicting Reenlistment

School	N	Percent Overlap	Best Single Area Key	Area Key Multiple	Absolute Increase	p[a]
(HM) Hospitalman	223	84	.12 (Food Service)[b]	.12	---	n.s.
(ET) Electronics Technician	110	79	.17 (Electronics)	.22	.05	n.s.
(YN)-(SK) Yeoman - Storekeeper	174	81	-.15 (Health Service)	.20	.05	n.s.
(EN) Engineman	109	80	.18 (Carpentry)	.23	.05	n.s.
(MM) Machinist's Mate	64	78	.25 (Sales-Office)	.35	.10	.05
Submarine	209	83	-.21 (Clean Hands)	.23	.02	n.s.

Notes --

[a]Significance of increase was determined between single area scale validity and $\underline{R}$'s based upon more than one area scale (McNemar, 1960, p. 279); n.s. indicates non-significant increase.

[b]Scale names in parentheses indicate the area scale on which validity is based.

TABLE 4

NVII Area Scale Means, Standard Deviations, and Correlations With Reenlistment by Rating

Scale	HM School (N=223)			ET School (N=110)			YN-SK Schools (N=174)			EN School (N=109)			MM School (N=64)			Submarine School (N=209)		
	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	r
1. Mechanical (22)[a]	3.4	3.4	-.03	12.3	5.6	.07	3.4	4.0	-.10	<u>16.1</u>[b]	4.1	.12	<u>13.2</u>[b]	5.2	-.04	<u>13.0</u>[b]	5.9	.15
2. Health Service (19)	<u>15.5</u>[b]	4.1	.05	4.9	4.0	-.01	3.7	3.7	-.15	2.8	2.6	.04	4.3	3.7	.04	5.4	4.8	.02
3. Office Work (20)	5.1	3.8	-.05	3.9	3.9	-.04	<u>13.6</u>[b]	5.4	.15	2.5	2.4	-.17	3.3	3.4	-.02	3.3	3.6	-.10
4. Electronics (17)	3.0	2.9	.03	<u>12.1</u>[b]	3.5	.17	3.5	2.7	-.11	8.3	3.5	-.02	8.6	3.9	.12	9.5	4.3	.03
5. Food Service (20)	6.3	4.0	.12	4.8	3.8	.01	4.3	3.2	-.10	4.5	3.1	.05	4.7	3.2	.09	4.4	3.6	-.09
6. Carpentry (18)	4.2	2.7	-.02	3.8	2.6	-.05	6.4	2.9	.01	7.5	3.4	.18	5.9	3.7	-.13	4.8	3.0	-.03
7. Sales-Office (17)	7.0	2.5	.01	5.2	2.5	.08	5.8	2.6	-.10	3.2	1.9	-.11	4.7	2.5	.25	5.2	2.7	-.06
8. Clean Hands (15)	4.9	2.1	.01	3.6	2.1	-.08	6.8	2.3	.08	3.1	2.0	-.03	3.7	2.3	-.15	3.7	2.2	-.21
9. Outdoors (15)	5.5	2.6	-.05	7.3	2.5	-.02	5.2	2.5	-.01	9.4	2.1	.11	8.1	2.7	.13	7.9	2.6	.04

Notes --

Scale means and standard deviations are in raw score units.

[a]Number of items in each area scale is given in parentheses.

[b]Area scales most relevant to each school sample are underlined.

motivation are identified. Significant mean differences between reenlistees and non-reenlistees on the occupational keys and area scales are also discussed.

a. Hospitalman (HM). Reenlistees scored significantly higher than non-reenlistees on both the BM and FS scales. Scores on the FS key were related to reenlistment (r = .16), but when FS scores were combined with other NVII scores, no significant increase in validity was obtained.

On area scales, this finding was corroborated since reenlistees also scored higher than non-reenlistees on the Food Service scale, which was related to reenlistment (r = .12). No other area scales contributed to this multiple.

b. Electronics Technician (ET). Reenlistees had significantly higher scores than non-reenlistees on both the RD and RM keys, and somewhat higher scores on the EM key. The best single predictor of reenlistment was the RD key (r = .18). When BT and CT keys were combined with RD key scores, a multiple correlation of .30 was obtained with reenlistment.

Reenlistees scored higher than non-reenlistees on the Electronics area scale and those scores were related to reenlistment (r = .17). No other area scales contributed to this multiple.

c. Yeoman (YN) - Storekeeper (SK). Reenlistees had significantly higher scores than non-reenlistees on both the SK and YN keys. Reenlistees had significantly lower HM key scores than non-reenlistees and tended also to score lower on the ET key. The best single predictor of reenlistment was the HM key (r = -.17). When HM scores were combined with YN and BT key scores, a multiple correlation of .28 was obtained.

On area scales reenlistees also earned significantly lower scores on the Health Service Scale, and these scores were related to reenlistment (r = -.15). Although the Office Work area scale was also related to reenlistment (r = .15), the Health Service scale was more highly related (.005). Neither the Office Work scale nor any other scale contributed to this multiple.

d. Engineman (EN). Reenlistees scored significantly higher than non-reenlistees on both the EN and MM keys and tended to have higher scores on the closely related BT key. Reenlistees also tended to have lower scores on the QM and YN keys. The best predictor of reenlistment was the MM key (r = .24). Other keys did not increase validity.

On area scales, reenlistees scored higher than non-reenlistees on the Carpentry scale, which was related to reenlistment (r = .18). Other area scales did not increase validity.

e. Machinist's Mate (MM). On occupational keys, reenlistees and non-reenlistees were characterized by the absence of a distinguishing pattern of interests. Reenlistees tended to score higher on the RD key, but no other differences existed between reenlistees and non-reenlistees. The best predictor of reenlistment was the RD key (r = .23). Combining additional NVII keys did not significantly increase validity.

On area scales, reenlistees earned significantly higher scores on both the Sales-Office and Electronics scales. Both of those scales yielded a multiple correlation of .35. This was the only case where a combination of area scales resulted in a higher multiple than that obtained employing a combination of occupational keys.

f. Submarine sample. No relevant occupational key was available for men in this school. There were a number of significant differences between reenlistees and non-reenlistees, with reenlistees scoring significantly higher on the ET, AT, MM, EN, and FC keys. Reenlistees also tended to score higher on the AD and BT keys. Reenlistees scored significantly lower on the CT, SK, and YN keys, and tended to also score lower on the QM key. The best predictor of reenlistment was the MM key (r = .22). When ET, RM, EM, and EN scores were combined with MM scores, a multiple of .40 was obtained with reenlistment. An empirical key designed to predict retention yielded a correlation of .33 for a cross-validation group.

Reenlistees earned significantly lower scores than non-reenlistees on the Clean Hands area scale. A high score reflects preference for "clean hands" kinds of activities. This key was negatively related to reenlistment (r = -.21). No other area scales increased validity.

E. CONCLUSIONS AND RECOMMENDATIONS

The results presented in this study indicated that both the NVII occupational keys and area scales can be of possible use in identifying "A" school students most likely to remain in the Navy. In general, reenlistees earned higher scores on occupational keys or area scales that were relevant or closely related to the relevant keys for their particular ratings. It was also reported that area scales effectively differentiated between the interest patterns of the school samples included in the study.

These results were particularly encouraging in that the NVII keys had not been specifically developed to predict career motivation. Further development, which would include additional empirically developed NVII keys, should lead to even better prediction. Keys developed in this manner, however, might not perform as well as occupational keys in differentiating men in specific ratings from NMIG. It is possible, however, to use different keys for classification than for predicting career motivation.

Research thus far conducted has shown the NVII to aid in predicting both "A" school grades and career motivation. The next step in the NVII research effort will involve evaluating the effectiveness of the inventory in predicting performance ratings as measured by the Report of Enlisted Progress Evaluation (NavPers-792).

One of the shortcomings of this study was that the sample size was not large enough to permit cross-validation of the various combinations of predictive scales. Future plans include a program of research aimed at further development of the inventory, with a subsequent large-scale testing of recruits, first-term, and second-term reenlistees. This research program will alleviate the restrictions noted in the present study.

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APPENDIX A

Descriptions of Clark's (1961) nine NVII area scales:

Mechanical

These items are about mechanical things, machine operation and design, or home repairs of mechanical and electrical gadgets.

Health Service

This scale shows interests in medical and hospital service, or in working in medical or chemical laboratories.

Office Work

This scale shows interests in clerical work, office machines, bookkeeping and accounting, or in office management.

Electronics

These items deal with the building and operation of radio and other electronic equipment.

Food Service

These items are concerned mainly with menu planning and preparing food.

Carpentry

This cluster deals with carpentry and furniture making. Some items show a dislike for electrical-electronics or medical-chemical activities.

Sales-Office

Two clusters are covered by these items. The largest deals with speaking and writing; the other indicates interests in art and music. Other items show an interest in people; some show socially accepted, "highly thought of" activities.

Clean Hands

There is no simple theme in these items. They seem to measure one's preference for "clean hands" activities.

Outdoors

Most items in this scale show interests in athletics and outdoor activities. A second group deals with unskilled manual jobs and home repairs. They indicate dislike of feminine, indoor, verbal, and complex tasks.

APPENDIX B

TABLE 5

NVII Occupational Scale Distributions and Validity Statistics by Reenlistment Status and Rating

	Submarine School						ET School						YN-SK Schools					
	Non-Reenlistees (N=108)			Reenlistees (N=101)			Non-Reenlistees (N=94)			Reenlistees (N=16)			Non-Reenlistees (N=147)			Reenlistees (N=27)		
Occupational Scale	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t
(AD) Aviation Machinist's Mate	45.3	7.5	.13	47.3	7.1	1.89*	42.9	6.7	.00	42.9	7.7	----	37.8	6.9	-.03	37.2	7.8	----
(AT) Aviation Electronics Technician	55.1	9.0	.15	57.7	8.4	2.17**	61.3	8.4	.11	63.8	6.5	----	46.0	6.3	-.05	45.0	5.7	----
(BM) Boatswain's Mate	46.4	8.6	-.09	44.8	7.8	----	42.8	7.2	-.02	42.5	7.0	----	48.9	7.6	.03	49.5	5.7	----
(BT) Boilerman	48.1	9.4	.12	50.4	9.1	1.79*	45.0	7.8	.07	46.6	9.7	----	41.3	6.7	.07	42.7	7.5	----
(CT) Communications Technician	52.5	8.7	-.16	49.7	9.7	-2.20**	54.7	8.1	.10	56.9	7.5	----	60.1	7.7	.03	60.7	7.9	----
(DC) Damage Controlman	49.5	7.2	-.05	48.7	7.4	----	45.7	7.1	-.05	44.8	6.2	----	48.8	7.1	.00	48.9	6.9	----
(EM) Electrician's Mate	53.4	8.6	.07	54.6	8.8	----	58.6	7.4	.11	60.8	4.0	1.74*	41.4	5.8	-.09	40.1	4.3	----
(EN) Engineman	49.1	8.9	.22	52.9	8.2	3.24**	47.7	8.0	.08	49.5	7.9	----	37.6	7.2	.01	37.7	6.9	----
(ET) Electronics Technician	56.0	10.0	.17	59.2	9.1	2.43**	64.1	8.8	.03[a]	64 8	6.8	----	45.9	7.1	-.11	43.7	5.4	-1.83*
(FC) Fire Controlman	54.2	9.8	.14	56.9	9.1	2.05**	61.8	8.6	.12	64.6	6.0	----	45.4	6.4	-.04	44.7	5.3	----
(FS) Food Serviceman	50.4	9.4	-.07	49.1	8.5	----	51.1	9.3	-.01	51.0	7.9	----	53.3	8.5	-.08	51.5	5.8	----
(GM) Gunner's Mate	47.3	9.7	.04	48.0	9.0	----	45.7	8.1	.04	46.6	9.8	----	40.4	7.5	.06	41.6	6.7	----
(HM) Hospitalman	51.7	12.2	-.02	51.2	10.2	----	49.9	8.1	-.02	49.3	11.6	----	50.6	9.2	-.17	46.3	6.1	-3.07***
(MM) Machinist's Mate	47.9	9.0	.22	51.8	8.5	3.24***	46.6	7.5	.05	47.7	7.6	----	40.2	6.8	-.01	40.0	6.0	----
(QM) Quartermaster	55.8	9.0	-.15	53.2	10.2	-1.90*	54.8	7.9	.09	56.9	8.6	----	58.2	7.4	-.09	56.3	7.9	----
(RD) Radarman	56.6	8.8	.01	56.8	9.0	----	61.6	7.5	.18	65.4	6.1	2.18**	48.6	7.3	-.06	47.3	6.4	----
(RM) Radioman	55.9	8.7	-.10	54.1	9.0	----	59.9	8.1	.17	63.7	4.9	2.60**	51.5	6.7	-.05	50.6	5.9	----
(SK) Storekeeper	48.2	8.1	-.18	45.4	7.0	-2.70***	48.2	7.8	-.07	46.6	5.7	----	66.8	8.9	.17[a]	70.7	6.0	2.83***
(YN) Yeoman	49.3	8.5	-.20	46.0	7.5	-2.99***	48.7	7.7	-.01	48.4	7.1	----	68.5	10.1	.16[a]	72.8	7.4	2.61***

Notes --

Raw scores have been transformed into standard scores (Mean = 50, Standard Deviation = 10) based on the standardization sample of Navy Men-in-General.

*Significant beyond the .10 level.
**Significant beyond the .05 level.
***Significant beyond the .01 level.

[a]Correlations between relevant NVII keys and reenlistment for each school are underlined.

(Table continued on next page)

TABLE 5 (continued)

Occupational Scale	MM School						EN School						HM School					
	Non-Reenlistees (N=45)			Reenlistees (N=19)			Non-Reenlistees (N=90)			Reenlistees (N=19)			Non-Reenlistees (N=204)			Reenlistees (N=19)		
	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t	$\bar{X}$	S.D.	r	$\bar{X}$	S.D.	t
(AD) Aviation Machinist's Mate	49.7	6.3	-.10	48.3	7.8	----	52.7	6.1	.11	54.3	3.1	1.67*	37.8	6.4	-.07	36.3	4.6	----
(AT) Aviation Electronics Technician	50.8	8.5	.08	52.2	8.3	----	45.6	8.1	-.05	44.7	8.5	----	50.1	6.1	.04	50.9	7.3	----
(BM) Boatswain's Mate	49.1	7.1	-.10	47.5	8.0	----	53.2	8.2	.13	56.1	8.9	----	46.4	8.2	.14	50.5	7.3	2.31**
(BT) Boilerman	51.8	6.7	.00	51.8	8.4	----	58.6	7.4	.16	61.7	6.8	1.81*	40.6	6.5	-.07	38.9	5.7	----
(CT) Communications Technician	48.7	6.4	.04	49.3	10.7	----	42.5	6.9	-.14	40.0	6.1	----	56.9	7.1	.04	57.8	6.0	----
(DC) Damage Controlman	52.1	8.5	-.15	49.4	7.2	----	54.9	7.5	.09	56.7	9.0	----	48.7	6.3	.06	50.1	6.7	----
(EM) Electrician's Mate	50.2	8.2	.14	52.6	7.7	----	49.6	8.0	-.01	49.5	7.2	----	42.9	6.9	-.03	42.2	8.2	----
(EN) Engineman	53.0	6.3	-.05	52.3	8.6	----	57.8	6.6	.21[a]	61.3	5.7	2.42**	39.9	6.5	-.05	38.7	5.2	----
(ET) Electronics Technician	50.8	10.0	.13	53.7	9.4	----	45.3	9.0	-.10	43.0	9.0	----	52.5	7.2	.01	52.8	8.1	----
(FC) Fire Controlman	50.9	10.1	.04	51.7	9.3	----	47.9	8.9	-.08	46.2	8.5	----	45.0	7.0	-.04	44.1	6.9	----
(FS) Food Serviceman	51.1	7.1	.12	53.0	8.4	----	51.6	6.8	.12	53.7	7.8	----	56.4	9.3	.16	62.0	10.6	2.21**
(GM) Gunner's Mate	51.1	6.6	-.07	50.0	9.5	----	56.9	6.7	.12	59.1	6.7	----	37.2	7.0	-.01	36.8	6.2	----
(HM) Hospitalman	49.4	8.9	-.01	49.3	7.1	----	46.4	6.1	.06	47.4	7.6	----	77.3	8.9	.04[a]	78.7	8.2	----
(MM) Machinist's Mate	52.4	8.2	-.01[a]	52.3	8.3	----	55.1	8.0	.24	60.1	6.9	2.78**	43.9	6.4	.01	44.1	5.8	----
(QM) Quartermaster	52.1	7.6	.01	52.2	9.3	----	46.9	6.7	-.16	44.2	6.0	-1.78*	61.3	8.1	.00	61.3	5.4	----
(RD) Radarman	53.7	7.7	.23	57.6	7.2	1.92*	48.2	7.3	-.14	45.4	7.8	----	47.9	7.1	-.04	47.0	6.4	----
(RM) Radioman	50.6	7.2	.15	53.2	8.6	----	46.6	8.2	-.13	43.8	8.7	----	50.4	6.8	-.01	50.2	7.4	----
(SK) Storekeeper	47.8	7.1	-.01	47.7	8.3	----	46.4	5.7	-.06	45.5	4.2	----	55.3	7.5	-.02	54.7	7.1	----
(YN) Yeoman	47.7	6.9	.01	48.0	8.7	----	45.5	5.1	-.13	43.8	3.0	-1.95*	57.5	8.4	-.04	56.4	7.9	----

Notes --

Raw scores have been transformed into standard scores (Mean = 50, Standard Deviation = 10) based on the standardization sample of Navy Men-in-General.

*Significant beyond the .10 level.
**Significant beyond the .05 level.
***Significant beyond the .01 level.

[a]Correlations between relevant NVII keys and reenlistment for each school are underlined.

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